

November 6, 2008

**MEMORANDUM**

**TO:** Mr. Steve Murray, P.L.S. - Tippecanoe County Surveyor

**FROM:** David W. Eichelberger, P.E. - CBBEL, Indianapolis

**PROJECT:** **Tipmont REMC Battle Ground Facility**  
**CBBEL Project No. 02-038 (HM)**

**DEVELOPER/OWNER:** **Tipmont REMC**

**LOCATION:** **86° 52' 31" Latitude**  
**-40° 30' 21" Longitude**

**RECOMMENDATION:** **Final Approval with Conditions**

Proposed site renovations at an existing REMC operation and maintenance facility include a new 25,836 square-foot building with associated paved parking, a storage yard, and access drive improvements. Existing maintenance buildings and two (2) residential structures will be removed to facilitate these renovations. The 9.34-acre property is located on the north side of County Road 600 North approximately 1,800 feet west of State Road 43 in Tippecanoe Township. Approximately 5 acres will be impacted by the proposed construction. The existing site drains by overland and swale flow to Burnett Creek, which follows the east property line and cuts partially through the project site. Moreover, approximately 0.92 off-site acres drain through the project site from the west to Burnett Creek and a larger 6.26-acre off-site area west of the site drains along an existing swale just north of the project site. Under proposed conditions, storm sewers will be installed along with grassed swales to convey runoff to on-site stormwater quantity and/or quality control drainage facilities. A dry detention basin will receive inflow from a majority of the storm sewer system prior to discharging, through a proprietary post-construction water quality control structure, to a release point at the northeast corner of the project site. Swale flow along the north property line will be picked up by a storm sewer inlet and combined with the detention basin discharge upstream of the water quality control structure. Access drive runoff will be directed into a post-construction water quality swale along the east property line and released via a sub-surface drain near the location of the storm sewer pipe outflow. Release point discharges will outlet overland to Burnett Creek.

Based on information available to CBBEL, it does not appear that any Tippecanoe County Regulated Drain exists at or near the project site. There are no regulated drain encroachments or crossings proposed with this development. As previously noted, the downstream receiving system for this area is Burnett Creek, which ultimately drains into the Wabash River. The project site is located within the Tippecanoe County MS4 Area.

This project was previously addressed in review memorandums dated September 18 and October 22, 2008. After a review of the most recently submitted material, CBBEL recommends final approval of the stormwater management plan with the following conditions:

## **Variances/Encroachments**

1. Chapter 4 Section D of the Tippecanoe County Stormwater Technical Standards Manual (Standards) states that the minimum pipe size for storm sewers accepting surface runoff is 12 inches. The applicant has requested a variance from this provision of the Standards for two (2) short lengths of 8-inch diameter pipe, one (1) short length of 6-inch diameter pipe, and one (1) short length of 4-inch diameter pipe. Due to the minor amounts of surface runoff that will be conveyed by these pipes, the location of the pipes in the stormwater management plan, and possible maintenance issues, CBBEL recommends that the requested variance be approved.

## **Stormwater Quantity**

1. The Base Flood Elevations (BFE's) and floodplain and floodway limits must still be reviewed and approved by the Indiana Department of Natural Resources (IDNR). The IDNR-approved BFE's, floodway limits, and floodplain limits should also be noted on the plans and copies of the IDNR approval document and mapping should be provided for the project file.

## **Stormwater Quality**

1. The applicant has submitted a "Recorded Master Covenant and Agreement Regarding On-Site BMP Maintenance and Drainage". The applicant should include the detention pond and the storm sewer system on the list of site specific devices on page 1. This Agreement must still be signed, dated, and notarized before the Tippecanoe County Surveyor's Office will approve the form. The Agreement must be recorded before final plan approval and sign-off will be granted by the Tippecanoe County Surveyor's Office.

## **General Conditions**

1. No site work of any type shall start on this project without a pre-construction meeting with the Tippecanoe County Surveyor's Office.
2. Final construction plans shall be signed by the Tippecanoe County Surveyor.
3. The applicant must present the project at the Tippecanoe County Drainage Board meeting for the project to be considered for approval.
4. The applicant must pay any final drainage review fees per Ordinance 2005-04-CM and submit a letter to the County Surveyor's Office stating that these fees will be paid.
5. The applicant must pay the Phase II stormwater program fees.
6. If no assurance is required under the Unified Subdivision Ordinance, Section 4.1, the Comprehensive Stormwater Management Ordinance of Tippecanoe County (Ordinance) still requires an assurance, made out to the Tippecanoe County Drainage Board, for an amount equal to 100% of the total costs of implementing measures required by Chapters 3, 4, and 5 of the Ordinance. See Chapter 6, Section 7 of the Ordinance for more information.

7. The property owner, developer, or contractor shall be required to file a three-year maintenance bond or other acceptable guarantee with the Tippecanoe County Drainage Board, prior to final approval, in an amount not to exceed ten percent (10%) of the cost of the stormwater drainage system located outside the public road right-of-ways. See Chapter 6, Section 9 of the Ordinance for more information.
8. All listed issues must be completely addressed before final plan approval and sign-off will be granted by the County Surveyor's Office.

No error or omission in the plans, calculations or applications (whether said plans, calculations or applications have been reviewed by the review engineer or not) shall permit or release the applicant and designer from constructing this work in any other manner than that provided for in the County Ordinance.

pc: Hannum, Wagle & Cline

DWE/KMD/jd

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